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American Engineer

thirteenth annual meeting • hotel statler • buffalo new york • december fourth to sixth

NATIONAL
SOCIETY OF
PROFESSIONAL
ENGINEERS
FOUNDED 1934

NOVEMBER 1947

VOLUME 17 NUMBER 11

IATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

EDITORIAL

Annual Meeting Opportunities

Next month's convention in Buffalo offers NSPE's members an opportunity to become better acquainted with the men who have headed the organization throughout 1947 and those who will carry on during 1948.

The Society's officers and Board of Directors will be in Buffalo for the Thirteenth Annual Meeting which promises to be the largest and most imporant such gathering yet held.

During the last thirteen years, since its founding, the Society has grown from a small group to a membership of nearly 17,000 professional engineers who are concerned with the social, economic and ethical problems of the profession.

During this period much progress has been made, professionally speaking. But much work remains to be done. It might be said that to date a good foundation has been laid for the steps which must be taken in the future.

Important 1948 Program

The Society‘s program of activities for the year 1948 will be the most important in its history. It will be broad in scope and far reaching in its aims. If it is to suceed, the wholehearted support of the membership will be needed.

The time to start giving such support will be immediately, and one of the best ways to show such support will be by attending the Buffalo meeting December 4, 5. and 6.

Among the major topics to be discussed on the business program are:

1. Legislative Policy: Much of the legislation passed by Congress has an effect on engineers, either directly or indirectly. Consequently, there is no group which needs one more or with a better right to adopt a legislative program than professional engineers. But, such a program should represent the best thinking of the profession and should reflect the majority views. Thus the formulation of this program is one of the most important business topics for the annual convention.

2. Younger Engineers' Problems: The June meeting of NSPE's Board of Directors adopted the so-called Ryan report and created a standing committee to deal with problems of younger engineers and engineers-in-training. This committee will have held its first meeting prior to the time of the annual meeting and will submit a report of great importance to the engineering profession as a whole. It will outline its program for the coming year for approval of the Board of Directors.

3. Membership: Membership will be an important topic from two standpoints. It is expected that the National Membership Committee will have an important report on the activities of the current year's program and that preliminary plans will be made for next year's activities.

Secondly, the Board will concern itself with classes of membership which are available in NSPE. At its last meeting, the Board of Directors instructed the Constitution and By-Laws Commi tee to investigate the possibility of creating a ne class of membership to accommodate engineer in-training, and it is fully expected that a repo on this matter will be submitted.

4. Committees: The many Committee's of th Society will submit their final reports, most c which will contain important recommendations fc future policy of the Society. Action will be take on these recommendations. Included among thes important reports will be one from the Publication Committee, one feature of which will deal with new advertising program for the AMERICAN EN GINEER.

Furthermore, and highly important, committe appointments for the 1948 will be made.

These and other important topics will compris the business session of the meeting. In addition t business sessions, a number of gatherings hav been planned for the purpose of presenting a grou of top-notch speakers to the convention. Include among these speakers are: J. H. Winne, vice president of General Electric Co. and presidentia advisor on atomic energy; Allan Cullimore, a to ranking educator and President of Newark Colleg of Engineering; a top official of the U. S. Govern ment; and Colonel Harold G. Hoffman, forme governor of the State of New Jersey and note public speaker.

Biggest Annual Meeting

To round out the program, luncheons, dinner and a banquet are scheduled. And for the ladie an interesting and entertaining program has bee planned.

It is highly desirable that those attending shoul bring their ladies. Not only is it more pleasan for the men, but the ladies too enjoy the progra and fellowship of such meeting. It is hoped tha each member attending will have his lady with hi

It will be a real program. It is planned as th biggest and best Annual Meeting yet to launch th biggest and best year's program yet for 1948.

NSPE would like to have you attend and kno that you support this program. Why not

Plan to go to Buffalo!

13th Annual Meeting
Hotel Statler, Buffalo, New York
December 4, 5, & 6, 1947

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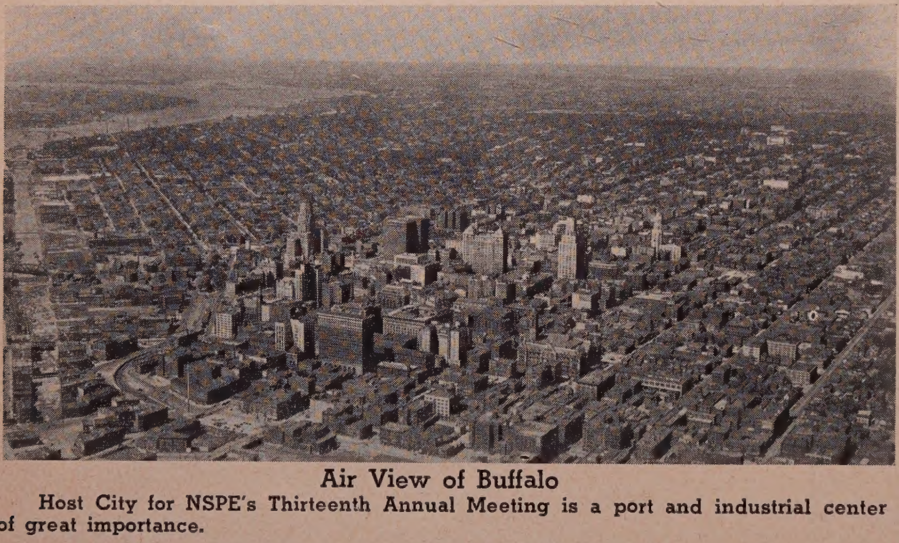
BUFFALO—QUEEN CITY OF THE LAKES
Rich in History and Engineering Lore

It is extremely appropriate that NSPE should hold its Thirteenth Annual Meeting in Buffalo. The history of that city is so closely related to the progress of the United States in history that its significance rivals even the contributions to progress which have been made by engineers. And Buffalo is an engineering center. Its power and other resources have made this inevitable. At the same time, the hospitality of the people of Buffalo is so warm that a pleasant and successful meeting is assured.

Buffalo, the ninth largest manufacturing city and the second largest inland port in the United States and one of the ten largest ports in the world, was not in existence at the time of the American Revolution. In 1795 a few houses were located on the city's present site. In 1804 these numbered twenty. By 1812 the population was considerably increased and the village became a center of interest because of the war on the frontier. In December, 1813, it was attacked and burned by the British and Indians, every house being destroyed. The village was quickly rebuilt and by 1820 there were 2,095 inhabitants.



Air View of Buffalo

Host City for NSPE's Thirteenth Annual Meeting is a port and industrial center of great importance.

Fourth U. S. Port

Buffalo had a natural reason for growth. It was at the foot of navigation on the Great Lakes. The opening of the Erie Canal in 1825, connecting New York and eastern ports with the west, added materially to Buffalo's growth. From that time on its shipping increased until now it is the fourth port in the United States in the value of tonnage.

In the early days the transportation of grain was the most important item of commerce on the Great Lakes. Much grain came down the lakes to be unloaded at Buffalo and then shipped east by railroad. This traffic gave ample reason for Buffalo to develop into the greatest milling center of the world. It is estimated that one fifth of all the grain produced in the United States passes through Buffalo. In recent years, the milling industry has produced 12,000,000 barrels per year. It has also developed, by reason of its twenty-nine huge elevators, into the greatest grain storage city in the world.

The shipment of grain and the extensive milling of flour naturally provided the incentive for the development of Buffalo as a railroad center. The first railroads in the United States were built in the 1830's. Buffalo had its first rail communication in 1833, just twenty years after it had been burned by the British and Indians. Gradual increase in the number of raw materials handled has brought about a steady increased necessity for rail communication with the result Buffalo is now the second largest railroad center in the United States.

In 1832, the recorded populatio was about 10,000, with about fort manufacturing establishments. Th period marked the beginnings o Buffalo's industrial developmen Industry now makes Buffalo, in a probability, the most diversified cit in the United States, with 1,391 manufacturing establishments. A larg percentage of manufacturing in th United States is to be found amon the Buffalo Industries.

Raw Materials Center

Great increases came in the decade after the Civil War and in recent years, especially after the firs World War. Among the products o these industries there must be note Pig Iron, in which the Buffalo district is one of the largest centers i the world—Linseed Oil, much o which is manufactured by the largest linseed crushing plant in th United States—Dyes, with the largest plant in the United States locate in Buffalo — Rayon, Wall boar which started here in 1906 an where nearly three-fourths of th country's total supply is produced Stockyards in which Buffalo stand among the first six cities of the country—the largest Sheep Market; th automobile and now the airplane.

Buffalo's high standing as an industrial center and port is based o figures applying wholly within th city limits which have not been extended in eighty years. The tremendous industrial development jus outside the city limits is part o Buffalo in every way except politica

Hydro Electric power became topic of interest in the 1890's, and b 1895 Buffalo began to use powe from Niagara Falls. The nearnes of Niagara Falls with the larges Hydro production in the world ha brought Buffalo an ideal power system.

Buffalo has not neglected the cul

(*Continued on Page* 11)

THIRTEENTH ANNUAL MEETING IGNIFICANT TO PROGRESS OF SOCIETY

LANS for the December annual meeting are complete. They assure that the Thirteenth ual Convention of NSPE will be ng the outstanding engineering erences of the year.

rom a business standpoint, the ting will certainly be the most ortant ever held by the Society. 3 will bring NSPE's biggest and t significant program yet. The teenth annual meeting will ally see the start of this program e next year's officers will be ent and will already have started ing plans to further the progress he profession during 1948.

he election results will be made wn following the report of the er's Committee which will be e on the afternoon of the final of the meeting. Immediately owing this announcement, comee appointments for 1948 will be e with the result that the new 's program can get under way ediately.

Ieanwhile, the Board of Directors have many important business cs to consider. They include:

egislative Policy: Engineers are cted probably more than any r single group, both directly and rectly by legislation. They have important stake in a large perage of the laws which are passed by Congress. Consequently, it is important that the profession have a legislative policy.

Dean Allan Cullimore

In keeping with the democratic principles of NSPE it is also important that this policy be representative of the thinking of the profession. Consequently, the Legislative Committee has drafted a proposed policy which has been submitted to the state and chapter members of the society in order that they may, in their turn, sample the thinking of individual members of the Society. The reactions of individual members will in turn be transmitted to the National Society for use in revising the proposed policy draft.

However, this does not end the matter. In order that NSPE may be doubly certain that its legislative policy will reflect the views and opinions of its individual members, the proposed policy will be discussed in detail at the annual meeting before it is finally adopted. Furthermore, there will be important discussions concerning steps necessary to implement the policy and make the most progress during the coming year in the interest of the profession.

Younger Engineers: Younger engineers and engineers-in-training have posed an important and challenging problem for the profession for a number of years. Actually, the men in these groups may not be full fledged engineers or their ideas and wishes may be overlooked due to the prestege and influence of older members of the profession.

However, within these groups are the men upon whom the future of the profession depends. They will be the older engineers of tomorrow and their views, wishes and desires are important—today.

This fact was recognized by the NSPE Board of Directors at their June meeting in Washington when the so-called Ryan Report was adopted. This action brought about the creation of a standing committee to deal with the problems of younger engineers and engineers-in-training. The general idea behind this committee is to devise ways and means of bringing recognition to the various younger groups within the profession. One recommendation is that various state laws be amended to give the engineer-in-training legal recognition in all of the various states. Some of them already recognize the training status of younger men in engineering, but most of the state laws overlook this class.

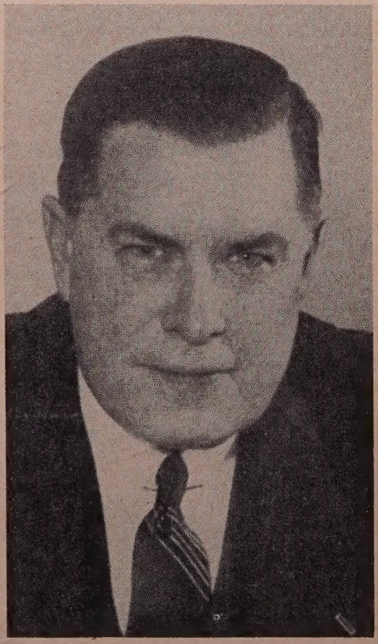
Many other suggestions have been made to meet this important problem, and at least some, if not all, of these will be discussed at the convention.

Probable result will be: A clearly defined, far reaching program to give the engineers-in-training and the younger engineer the recognition which is certainly their due.

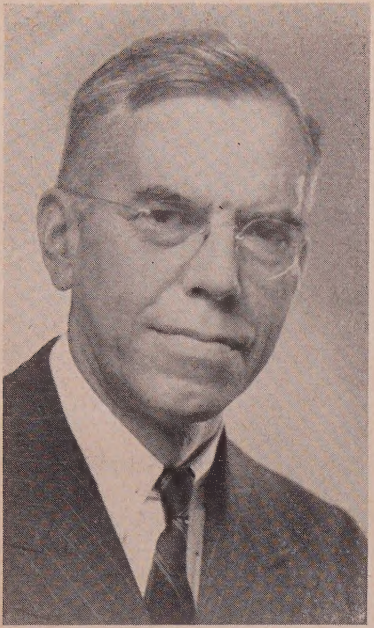
Membership: Membership is a question which is basic. It is related to the progress and ultimate strength of the Society. Only by maintaining and increasing membership can the Society progress.

Consequently, this will be an important item for discussion at the Buffalo meeting. It is expected that the Membership Committee will have an important report to make on the progress of the 1947 drive and also that preliminary plans will be made for the 1948 membership campaign.

From another standpoint, membership will be important to the meeting of the Board of Directors. It is expected that the Constitution and By-Laws Committee will submit a report on creation of a new class of membership within the Society to



Col. Harold Hoffman



Harry A. Winne

accommodate engineers-in-training. The Board instructed the Committee to consider necessary steps to creation of such a new class at its last meeting. Such action will be extremely important to the Society and a thorough exploration of the proposal may be expected before any final action is taken.

Each of the Society's Standing Committees is expected to make a report to the Board of Directors which will constitute an important part of the meeting.

Prominent Speakers

Following the Board meeting and the annual meeting, a day of discussions will be held. Important and well known speakers have been scheduled to speak to the meeting on subjects relating to the general there: "As Others See Engineers' Responsibilities."

The program has been planned so that there will be a speaker from government, one from industry, and an educator. Among the speakers scheduled for this day are:

Harry A. Winne, vice-president of the General Electric Company. Mr. Winne has had a long experience in engineering with this company and has been responsible for many important contributions. Most recently, he has concerned himself with the tremendous atomic energy program which GE has undertaken.

Mr. Winne is a native of Cherry Valley, N. Y. He was graduated from Syracuse University in 1910 with top honors in his class, receiving a degree in Electrical Engineering.

In 1911 he was made head of the large motor, generator and synchronous converter test. About a year later he became assistant general night foreman of the testing department. "That was probably the most interesting and valuable experience I ever had," Mr. Winne once said.

Five years after he joined GE, he was promoted to the power and mining engineering department, now the industrial division. There he was assigned to problems connected with industrial heating, arc welding and electrir furnaces. In 1922 he was transferred to the steel mill section of the industrial engineering department, and became head of that organization eight years later.

Mr. Winne was appointed sales manager of the combined mining and steel mill section in 1936. The following year he was selected by R. C. Muir, then GE vice-president, to be his general assistant.

In connection with a major change in the GE organization in October, 1941, in which various operating departments were announced, Mr. Winne was elected a vice-president and placed in charge of design engineering for the Apparatus Department.

In 1945 he was appointed vice-president in charge of engineering policy for the entire company, becoming a member of the staff of Charles E. Wilson, GE president, but retaining headquarters in Schenectady.

Central gunnery control for tl
B-29 Superfortress, the automat
pilot, the turbosupercharger, the ga
turbine engine for aircraft, whic
has been described as the engine (
the future—virtually all of the mo
famous products turned out by tl
GE Apparatus Department durir
the war—were developments of tl
Design Engineering Departme
which Mr. Winne headed befo
assuming his present post.

Besides heading the Apparatu
Design Engineering Department du
ing the war, he was also a member (
the War Projects Committee whic
coordinated General Electric's wo
with the War and Navy Department

In January, 1946, Mr. Winne wa
appointed by Secretary of Sta
Byrnes to a board of consultants t
aid the committee on atomic energ
In March, 1946, he was appointed b
the War Department to a technic
advisory board, which assists th
Army Transportation Corps in i
transportation research program. Th
advisory board comprises 52 mem
bers, "all leaders in the marine, rai
way and highway transportatio
industries."

In September, 1946, Charles E
Wilson, president of General Electr
announced that work on atom
energy which the company wa
undertaking for the government ha
been designated the "Nucleonic
Project," with the company's activ
ties on the project under the over-a

(*Continued on Page* 11)

Niagara Falls—Near Meeting Site

Engineering Opportunities Presented In Reconstructing Blighted Areas

The aggregate value of property ı cities of 30,000 and over in the nited States, for which recent gures on assessed valuation are vailable, reaches the impressive total f over $93 billion, according to a ecent statement of Earl O. Shreve efore the U. S. Chamber of Com-erce Business Men's Conference on rban Problems. Mr. Shreve is resident of the Chamber.

Most of this large total would not xist if engineers had not made a remendous contribution to the build-ıg and maintenance of such cities. Jnfortunately, from an esthetic tandpoint, maintenance and improve-ient of cities is not a question vhich is decided solely by engineers.

Economic Foundation

In commenting on urban develop-ient, Mr. Shreve said: "No lasting nprovements in our communities vill be brought about which do not est securely upon the economic base f the community. Business men re especially trained to think in erms of the activities which provide he residents of a community with heir livelihood. They are also trained o think in terms of the initial con-truction and subsequent operating osts of proposed municipal improve-ients. This type of practical and orward-looking thinking must be pplied to our urban problems if we re to make substantial progress in heir solution."

In reviewing the history of growth f cities and the pattern which they ave followed, Mr. Shreve said: The charge is not true that our ities have grown without any hought being given to their future. Iuch planning and forethought have one into community development. Vitness the extraordinary develop-ient in cities generally of modern anitary facilities and of abundant ure water for individual, industrial nd other uses. The modern water-vorks of our larger cities have been lanned in relation to population rowth far in advance of the actual eeds. Indeed they represent riumphs of engineering planning, esign and construction.

"Witness again the residential evelopments in many of our cities, particularly those which have been planned as controlled neighborhoods.

"And I might ask in this connection, where are the telephone poles of yesterday? The private utilities in our cities have gone underground. There has been a lot of outstanding planning done by the officials and engineers of the utility companies responsible for anticipating the future needs and growth of the city. These activities have become a part of their daily operations.

NOTICE

The Washington Office of NSPE maintains a file of back issues of the AMERICAN ENGINEER in order to supply members with copies upon request. Unfortunately, the supply of some of the back issues has been exhausted, and since from time to time we have calls for these back numbers, we would like to replenish the stock of these magazines which have been depleted.

We believe that some members may have back issues of the AMERICAN ENGINEER which they may not need or may not want. Consequently, since these particular magazines would be useful in the Washington Office, we would appreciate it if anyone having such back numbers would send them to the AMERICAN ENGINEER, 1359 Connecticut Avenue, Washington, D. C.

The back issues which are needed are: February, March, November and December of 1935; May of 1936; January of 1939; October 1945; January, May, August and September of 1946; and February, April, and May of 1947.

"We are by no means inexperienced then in the arts and techniques of community development. Both city officials and private developers, utilities, transit companies and others have acquired over the years much practical knowledge in this field. There should be no misgiving in the face of this encouraging situation about our ability to plan for the sound future development of our cities.

"The very rapidity of our urban growth, however, has given some people a feeling of doubt as to our capacity to grapple successfully with our current urban problems. The revolution in modern transportation, they think, has all but over-whelmed us. We suffer, they say, from too much progress. If that is so the cure does not lie in despair of our ability for constructive and timely action. It certainly does not lie in checking progress. Rather we must accept the fact that, as communities, we must vigorously tackle the job of catching up with our own progressive activities as individuals. That is a challenging situation in which to be."

Thus, while much progress has been made, while our cities represent probably the most valuable properties in the world, there is still room for progress. This progress can only be made through engineers and their know-how. It is essentially an engineering job, although as Mr. Shreve pointed out, many other factors will govern the time and progress which can be made in dealing with these problems.

The Engineer's Part

Consequently, since the engineer must ultimately do the work of improving these urban areas, it seems altogether appropriate that he should concern himself, as a professional man, with the humanities and the economics involved. He should come into the picture as a citizen, prior to the time that orders to start plans or construction are issued. He should act as a counsellor to his particular local community in dealing with urban improvement and slum clearance problems. To do so is his right as a citizen and his duty as a professional man.

In discussing the elimination of blighted areas, Mr. Shreve said: "Slum clearance is a slogan which has a great appeal to civic minded people. In my travels I have not found many extensive slum areas outside of a few larger cities. What I have found can more appropriately be described as blighted or run-down areas, in which living conditions have deteriorated to a greater or lesser extent. While not as universal as the traffic problem, the removal of blight and the improvement of urban housing and of neighborhood living in cities is a problem common to many communities, particularly those of 50,000 population and over.

Community Action

"There is no reason why we cannot eliminate, or greatly reduce, our blighted areas and slums within the next decade. Certainly here is a goal worthy of our greatest efforts. As a matter of fact the future soundness of the physical structure of the city will depend upon our ability within reasonable limits to create within the city an environment which meets the requirements of modern living standards. It can be done. Already the way is being pointed by progressive community action."

That the engineer has a place in the early planning and promotion of projects for elimination of blighted areas is recognized by Mr. Shreve when he says, in speaking of the relation ships between traffic flows and area developments: "These and other relationships, and reasonable standards of land use, must be thoroughly studied and clearly grasped. To understand them we must know the reasons for the city's growth and the direction this growth is taking. We must also understand the significant changes which are taking place in the movement of people and of commercial and industrial activities.

"The means which we adopted in the early twenties to enable us to take this continuous over-all view of urban problems is the city planning commission. These commissions are in the nature of staff agencies advisory to the municipal government. Chambers of commerce were frequently responsible for setting them up. They exist in many communities throughout the country. Where properly staffed they are doing good work, some of which is outstanding.

"But experience has demonstrated that even an efficient city planning commission is not enough. It is not easy to gather and to interpret the significant facts bearing upon the solution of complex urban problems. The city is an intricate organization with its own laws of growth and of change which require much hard study to understand. The work of the city planning commission needs to be coordinated with the work of the operating divisions of the city government. It also needs to be supplemented by the active interest in these planning problems on the part of civic organizations. By active interest I mean both assistance in assembling the necessary data and in keeping them current, and in the continuous study on the part of citizens as well as by the city planning commissions of the pertinent facts in order to bring out their significant bearing on proposed improvements.

"I see no easy way to arrive at sound decisions with respect to these urban problems. The facts must be continuously and intensively examined and appraised by informed judgment. The experience of other communities must be brought to bear upon the problems in our own community. We need public discussion and even public debate, based not upon mere opinion or prejudice, however, but upon the estabilshed facts. The success of any program for community development, no matter how well it is otherwise organized, will depend finally upon public understanding and public support. This fact must not be overlooked. It should be basic in thinking out our approach to these problems."

Public Support Needed

Mr. Shreve's statement that such projects should have public support and backing is based on experience in many cities and programs which have been undertaken for many years. He fails to say, however, that the engineer is in a position to encourage and mobilize public support for projects to deal with blighted areas.

A professional approach to such a problem is naturally an informed approach. It is axiomatic that public relations must be built around facts. Thus, the support of qualified engineers in planning urban improvements is highly beneficial. If such support is professionally given it will undoubtedly be an important factor in bringing about civic improvements in many localities.

In undertaking the encouragement of blighted area improvement, the engineer may benefit to a great extent from experience of some cities which have had such programs in the past and some which are now in progress. The Chamber of Commerce conference developed these facts which may be helpful:

Detroit: The Detroit plan for rebuilding its blighted areas is based on three conclusions which have been reached after years of study by representatives of government, business and other civic groups. These conclusions are:

1. An adequate rehabilitation program is not essentially a housing plan but must also provide for commerce, playgrounds, school areas, parks and parkways and perhaps expressways.

2. Detroit must work out its own salvation and anticipate only to a secondary degree any benefits that may come from Federal assistance.

3. The rebuilding of the area should be undertaken by private developers with private capital.

Major idea behind the Detroit Plan is to promote rehabilitation of slum areas, but at the same time, to bring this about with little or no actual cost to the city.

The Detroit plan was initially conceived by Mayor Edward J. Jeffries and given to the Detroit Housing Commission, a public housing authority with city departmental status, for development. When rough drafts were completed, private developers, as represented by the Construction Industry Council of Detroit, were called in to act as critics and cooperaters in the drafting of a final program.

The study between city and cooperating heads of the private construction industry resulted in this plan to clear slums on a basis whereby the City of Detroit will take an initial loss on land acquisition and preparation and later recover that loss through increased tax revenues from the redeveloped site. To start the program, the City Council has approved acquisition by condemnation of approximately 100 acres of slum territory near the heart of the city.

Acquisition Cost

Detroit set out to determine what it would cost to acquire this area. Based upon present assessed valuations, current market prices and prior experience with condemnation juries, the conclusion was reached that the entire 100 acres could be acquired and cleared for new construction at a gross of $3,750,000. Further estimating indicated that the redeveloped land could be sold to private builders at a fair land use value of $860,000.

Offhand, it would appear then that it would be necessary for the city to invest $2,890,000 in the development. However, it was pointed out that as the area now exists it badly needs certain community improvements.

here is a drastic shortage of park d play space, land needed for an xpress highway bordering the deelopment, and other necessities condered essential to a going metrolitan area. Based upon these City lanning Commission's estimates of e needs of the 100-acre area, it was termined that a $950,000 expendire must in any case be made to quire and clear property for comunity redevelopment.

In estimating the total city investent in the Detroit plan for reevelopment of the 100 acres, it was erefore decided fair and equitable subtract from the $2,890,000 gure the $950,000 which, it is vious, must in any case be exnded. This subtraction leaves ,940,000 as the net community vestment which Detroit will put to the area.

The question arises as to how the ty will get this money back. If ere were but one 100-acre blight ea, a city the size of Detroit could sorb the $1,940,000 investment and unt it as well spent. In Detroit, wever, this is but a beginning, and e question of repayment of the oney, or rather its return to a volving fund for future developent, is essential.

Planned Housing Units

In 1945, the 100-acre slum area as assessed at $2,285,585. On the sis of the 1945 city tax rate of 9.44 per $1,000 of assessment, the ea produced in city tax revenue a al of $66,450.

Private developers interested in construction of the area foresee its e as the site for a group of planned ,000 housing units. Based upon eir plan, it is apparent that the sessed valuation after redevelopnt will total approximately $6,0,000. Using as a gauge the 1945 y tax rate, the redeveloped area uld produce an annual $200,650 in y revenue. In other words, when redevelopment is completed, the y of Detroit will receive each year m the area $134,200 more in city revenue than was taken in during year 1945. Rough mathematics icates that the $1,940,000 comnity investment would be liquied in a 15-year period, and that in years the city would pay not only s net investment but would, in lition, get back the $950,000 investnt for community improvements.

fficials of the City of Detroit are husiastic about this program bese they believe it to be the simplest solution to the problem and, more important, it has been removed from the dream category and actual work has been started. The program will be developed as rapidly as the present material and housing shortage will permit.

Baltimore: Rehabilitation problems of several cities are closely related to the flow of traffic and the availability of adequate streets for motor car transportation. One of these is Baltimore. In this city, decentralization, which has been called the result of creeping blight, has caused a sharp shrinkage of tax assessments in the down town area.

The real cause could be more accurately described as a growing "inaccessibility" of these business areas from the balance of the area of the cities they serve. Inaccessibility is directly attributable to increasing traffic through old streets without the needed improvement of the arterial streets and highways reaching the section from other parts of the city. It is directly attributable to lack of sufficient off-street parking places to accommodate the cars wanting to stop in the area; and to congestion caused by curb parking that is continued until such a supply of off-street parking can be built.

MEMBERSHIP DATA

Each member of NSPE has received a membership data card with his ballot for the annual election of officers.

The information requested on this card will be used to modernize the Society's membership records. Consequently, it is important that each member return this card to National Headquarters in Washington.

Therefore, it is respectfully requested that you fill out this card and mail it to the National Society of Professional Engineers, 1359 Connecticut Avenue, Washington 6, D. C., when you return your ballot for the coming election.

Inaccessibility of any area discourages citizens from coming to an area and property owners neglect needed maintenance on many places of business, resulting in unattractive properties and streets—the beginning of blight.

Summarizing — Narrow, inadequate streets leading to and through the central business districts make them difficult to reach within a reasonable length of time by either private conveyance or mass transportation to say nothing of the difficulty of disposing of a private car upon reaching the district. This breeds decay of business and properties within the area, because the public turns to more accessible localities to do business, lowering downtown income and the producing ability of central area property.

Assessment Changes

Statistics on assessments for Baltimore are submitted herewith:

Year 1931—	
Business District	$175,400,000
Year 1947—	
Business District	128,400,000
Shrinkage—16 years	$ 47,000,000
Per Cent Shrinkage	27%

City-Wide Trend—1931 to 1947	
Based on 1931 Assessments as	100%
Business District 1947	73%
Close-In Areas	77%
Intermediate Areas	98%
Outlying City Areas—New	126%

The total City assessable basis for the same periods shows 1947 to be 102 per cent of 1931.

For solution the cities need improved accessibility to their central business districts. This means improved arterial streets, expedited traffic (one-way movement, lights, etc.), more off-street parking, perimeter parking with shuttle-bus service, a modern highway pattern and adequate public transit to serve the area.

Chicago: This is another city where the blighted areas result largely from traffic problems. H. Evert Kincaid, executive director, Chicago Plan Commission, recently made this report to the Busines Men's Conference on Urban Problems:

"Urban communities contemplating the redevelopment and rebuilding of blighted areas have unprecedented opportunities for reconstructing the street systems to conform to the needs of modern traffic and to the use of abutting lands. Most cities, taking Chicago as an example, were originally built during an era of horse and buggy transportation and slow-moving public transit vehicles. The value and use of land was not particularly important and the builders thought it necessary to provide a pattern of small blocks with much area devoted to local streets.

With the advent of the automobile and its popular use, cities are today confronted with the problem of providing facilities for rapid and expeditious movements of heavy traffic. At the same time it has become necessary to protect privately-owned properties from the ravages of traffic and its hazards within the areas where families are striving to maintain an acceptable standard of living.

“In order to illustrate these points I should like to confine my comments to a specific redevelopment study of an area located two miles northwest of the Loop in Chicago. I have before me a model showing the manner in which it is proposed to replan and redevelop 118 acres now characterized as blighted, many buildings in the area being unfit for human habitation. At present this 118-acre neighborhood is criss-crossed with a grid pattern of streets permitting heavy traffic to pass through the neighborhood and inviting movement of trucks from nearby industrial districts. Thirty-three percent of the total land area is taken up by streets while practically no land is devoted to recreational purposes or other amenities for public use. There are located on small sites which do not three old public school structures provide for adjoining play areas.

New Street Plan

“In the proposed plan of redevelopment almost all of the present street pattern is eliminated and there will be substituted a layout of streets and service drives designed to serve the needs of a new neighborhood of homes, bounded by a system of thoroughfares and expressways designed to carry through-moving traffic to destinations beyond the area or into the central business district. In this exchange of street patterns—the old for the new—considerable saving is made in the use of land so that it is possible in the new plan to provide for a centrally located 7-acre school and playground site at no expense to the project insofar as use of land is concerned. In fact, there is a net gain in the exchange of land devoted to public uses of approximately three acres, which can be used for building sites and adjoining open space. In addition to the economic gains resulting from the replanning, the movement of traffic will be benefitted materially. Through-traffic will be taken away from in front of places where people want to live, thereby providing greater protection to life and property. Economics in both construction cost and maintenance are achieved through the ability to build lighter pavements where only light traffic need be expected.

“The Chicago plan for redeveloping its widespread blighted areas calls for a similar program of replanning and redevelopment in every instance in order to provide for neighborhoods of good character and to provide a system of facilities for convenient and safe movements of motor vehicles.”

Newark: Some cities have sought to encourage insurance companies to invest in converting blighted areas to modern residential sections. Newark, N. J., is one of these.

Mr. Paul Bestor, vice-president of the Prudential Insurance Company reported on this as follows:

“It is my opinion that the investment in well selected rental housing projects is a natural for life insurance companies because of the stability of the investment over the long pull. Insurance companies are willing to accept moderate returns on these investments because of this stability. Also, by making these investments they are recognizing their obligation to the public. It should be obvious that under these circumstances insurance companies would be inclined to go as far in making such investments as the interests of their policyholders, which are, of course, always partmount, permit.

“But the rehabilitation of blighted areas by the erection of low rent housing is something else again and the assembly of land on which to erect such housing is problem number one. I can speak only from the actual experience of one insurance company in redeveloping blighted areas. Some fourteen years ago, in cooperation with the City of Newark and under the provisions of a special act of the State of New Jersey, we developed two moderate priced projects of this type which are are now operating. These projects have been moderately successful, even though rents are very low, but they have not been sufficiently successful to encourage us to undertake similar projects elsewhere—at least that was true until recently. Since the passage by the State of New Jersey during the last three years of several Acts intended to encourage private construction of rental housing and the enactment of similar types of legislation by other States, we have studied a number of proposed lo cost projects and have watched th efforts of other private institution to do the same thing. There is considerable evidence at hand that b going up in the air somewher between thirteen to twenty storie thereby increasing the density c population instead of decreasing i private institutions may be successfu from the economic standpoint i developing projects for relatively lo rents, in spite of high cost of lan assembly although where this ha been accomplished it almost come within the category of achieving th impossible.

“In most such cases it seems t have been necessary for the privat institution to take advantage of a ta subsidy made possible under th Redevelopment Acts of the variou States.

“Insofar as information at han is concerned, it leads to the inevitabl conclusion that for private institutions to redevelop blighted areas wit provision for decreased density c population per acre and without lan assembly subsidy, is entirely out c the question. At least that is tru under present construction costs an within the low rental pattern obtainable in such areas. This might nc be true in more nearly normal time In spite of cumbersome condemnatio laws, it would seem much mor practicable and less costly to assembl land in blighted areas through som authority which can use the right c eminent domain. Even though assembled by civil authority, the cost c assembly will probably be too hig in most instances for private construction of rental housing unle some form of subsidy is granted. T meet this situation and to enable redevelopment of blighted areas b insurance companies, several state have passed redevelopment acts providing for tax subsidies. Constitutional questions have arisen in connection with some of these acts, som of which have not yet been decided.

Redevelopment Act

“In New Jersey last year a Redevelopment Act was passed permitting municipalities to assemble lan and lease it for not to exceed sixt years to insurance companies, o condition that the net return is nc to exceed 4% on the investment i addition to amortization schedul and that upon the complete amortization the building revert to the municipality. Under the terms of th lease, in addition to reasonab ound rent, the municipalities are titled to 12% of the gross income n the buildings in lieu of taxes. This t would seem to me to present ssibilities."

Indianapolis: Indianapolis has a edevelopment program which is ctually under way. A redevelop- ent commission, which is established nder law, has designated a tract of 78 acres as a blighted area. It has udied the area and adopted a plan f rehabilitation. It has actually arted acquisition of property in the rea.

In reporting on this project, Mr. aul L. McCord, President of the oard of Commissioners of Indiana- olis said:

"The Indiana legislature and the itizens of Indianapolis have accepted e basis that the public must assume e excess cost of acquiring, clearing nd planning the re-use of slum reas. We should not lose sight of he fact that the city will be com- ensated for such excess costs over period of years through increased roperty values, resulting in increased ax collections.

Pay as We Go

"We are no doubt peculiar in that ve have chosen to pay as we go. Jnder our law, deferred payment hrough bond issues is not permitted. That has been no stumbling block. Ve had authority from the legisla- ure to levy a tax of 10 cents on each 100.00 of taxable property the first wo years, without review, thereafter p to half that amount or 5 cents on ach $100.00 of taxable property may e levied subject to methods of re- iewing tax rates and budgets such s we use in Indiana.

"We have withstood our first court est. Under our law, the owners of ffected property have the right to emonstrate and obtain a court review vhen the Redevelopment Commission as made an official decision to de- lare their property blighted and has nnounced its intention to acquire uch property for redevelopment. 66 of the 300 affected owners in our first rea obtained a court review of the irst project, and after extensive earings the court fully sustained he Commission's declaration. There as been no constitutional test of our aw, but the time for that is not now o appropriate in view of the numer- ous uncontested actions of the board nd failure of the one court test of he Commission's administrative decisions. We believe, if a constitutional question is raised, that we are on safe ground.

"Of course we learn as much from experience as we do from all the advance theorizing. One of the most significant developments with us has been the conclusion we unanimously arrived at that there is much to be salvaged in the redevelopment of the first area. We are definitely not going to scrap all existing sewers and utilities, street layouts of even houses. A number of houses in the area are such that a little repair or rehabilitation will make them suitable for many years to come.

Readily Salvageable

"It is very true that this may not present as beautiful an architectural layout as would result if we had all new housing in the area, but our Commission is convinced that we cannot justify spending public funds to acquire and destroy property that is so readily salvageable. Equally important we are sure that we can accomplish this salvaging job without either economic or social disadvantage to the new housing and the new residents and owners. After months of study, therefore, we have deliberately undertaken to save as much as possible of the property that we acquire.

"We are of the opinion that in the long run a policy such as ours will accomplish far more in eliminating slums than the opposite approach.

"One thing we must all realize is that these slums were not created overnight. They are the product of many years of development and decline. The problem is so enormous we cannot solve it in one fell swoop, but we can accomplish more within a reasonable time, if we accept this more realistic approach.

"We, of course, are also learning a great deal about people. It was something of a shock to us to find a good many owners and occupants of slum housing who wanted only to be left alone. We found that our project was a rather ripe field for agitators of various kinds. By spreading rumors and false reports, every effort was made by some of our affected community against the plan. Yet only a comparatively small radical fellow citizens to arouse the minority swallowed the propaganda. A large majority evidenced willingness to accept and work with our plans.

"We are embarked in Indianapolis upon a continuous program. Already we are about to designate a second and smaller area as blighted. Incidentally, that area is not to be redeveloped for housing, but for a very obvious industrial use. Our financial resources, we hope, will to a large extent become a revolving fund, as we acquire, replan and dispose of one area after another.

"One of our uncertainties at the moment is the extent to which private builders of all types will actually come in, acquire and build on the redeveloped land. We are definitely counting on those who believe in private enterprise to stretch a point, if necessary, in working with us, acquiring and building on this land. Sufficient interest has been shown to make us optimistic that we shall have their cooperation.

"We think that we are demonstrating in Indianapolis that cities can accomplish this redevelopment job, in partnership with private enterprise, without need of federal help. Out our way there is strong resistance against further federal encroachment in the field of local and state government. Our legislature adopted a resolution on that subject. We think our dedevelopment project is one evidence that Hoosiers mean what they say, when they ask Uncle Sam to restrain his impulse toward further paternalistic invasion of the functions of private enterprise and local government."

Washington: The Nation's Capital has a unique form of government in that the Congress of the United States acts as the legislative body for the city. Administrative authority is vested in three commissioners appointed by the President.

Usually, this governing organization is slow to act. This has been true in the case of an engineering registration law for the District of Columbia. However, in the case of slum clearance legislation Congress has acted surprisingly fast.

By August 2, 1946, Congress had passed and the President had signed the "District of Columbia Redevelopment Act of 1945." This Act provides for the replanning and rebuilding of slum, blighted and other areas of the District of Columbia and the assembly by purchase or condemnation of real property in such areas and the sale or lease of such property for the redevelopment of such areas. It also provides for an Agency, its organization, procedure and financing, for such planning, acquisition, sale or lease, and for other purposes.

The National Capital Park and Planning Commission is directed to develop a comprehensive plan of the District of Columbia, to serve as a general framework or guide of development within which the various project areas may be more precisely planned and calculated, and which shall include a land-use plan which designates the general locations and extents of the uses of the land for housing, business, industry, recreation, public buildings and other general categories.

Property Acquisition

For the acquisition and disposition of real property for the redevelopment of a project area, the boundaries thereof will be submitted for approval to the District Commissioners, who shall hold public hearings. After a project area redevelopment plan has been submitted and approved, the Redevelopment Land Agency will proceed to the exercise of the powers granted it for the acquisition and assembly of the real property of the area.

In the project area planning, the Planning Commission is directed to consult with the Agency, and the latter is free to submit to the Planning Commission suggestions regarding location, extent and use of project areas.

After the real property in the project area has been assembled, and certain land transferred for public use, the Agency may lease or sell the remainder as an entirety to a redevelopment company or to an individual or partnership, after a public hearing. The terms of lease will be fixed by the Agency and conform to the approved plan. No lease or sale shall be made to any public redevelopment company unless it shall provide greater compensation to the Agency than through responsible private sources. The leases or sales may be based on the new land-use value, and up to two-thirds of the cost may be written off.

Families displaced by slum clearance will be given preference as tenants. No real property is to be exempt from taxation, except as it is designated to be used for Federal or District or tax-exempt use.

The services of specialized and expert services may be employed by the Agency, and an organization set up to accomplish the purposes of the Act. In the Act authorized, but not yet appropriated, is $20,000,000 for this purpose, but due to the necessity for the Planning Commission to receive its appropriation for preparation of its plans, before the Redevelopment Agency can act, there has as yet been no funds made available for the Redevelopment Agency. The Planning Commission just received their funds the day before the Congress recently adjourned, so it may now begin drawing its plans,

The Bureau of the Budget has approved a substantial budget for the Agency, and its officials are now awaiting the convening of Congress next January, in order to present justification for the amount sought.

This delay may be expensive, as that in the two outlying areas tentatively selected for redevelopment by the Park & Planning Commission, there is already pressure from the current real estate market, and from residents of these two areas, upon the D. C. Commissioners to install utilities that may later prove embarasing in redeveloping the property.

These few instances illustrate what has been done and what is being done in certain localities throughout the United States in connection with elimination of blighted areas. They show some of the important problems which are encountered by governments in dealing with such problems and indicate some of the things with which engineers and engineering organizations will have to contend in concerning themselves with slum clearance and elimination of blighted areas.

However, they may suggest methods of procedure to such engineers and their organizations which may be used to simplify their approach. Interest in such problems seems to fall within the scope of the professional engineer.

Building Cost Survey Reflects High Prices

While the costs of heavy engineering construction, such as dams and earthmoving projects, are remaining steady in many areas, the costs of building construction, such as factories, commercial structures, large residential projects, and highway construction are continuing a slight upward trend, according to a recent statement on behalf of The Associated General Contractors of America, Inc.

The trend follows cost increases which can be perceived for commodities and services in general and is principally caused by higher material costs, recent wage increases for construction trades in many cities, and a low labor productivity, which continues to be lower than prewar standards for output.

This national picture of cost conditions in the construction industry today resulted from a telegraphic survey of 101 chapter managers and secretaries of The Associated General Contractors of America, as well as elected directors of the association, who are industry leaders in their localities. Over 4,300 general contractor firms, established in all parts of the country, are members of the association.

A total of 114 replies were received to a telegram, which asked for cost information and for "significant information on the following: Is more or less work coming on the market? What is the availability (locally) of materials, equipment, manpower?"

A total of 83% of building chapter managers and building construction directors of the association reported prices were moving slowly upward, 82% of highway chapter secretaries or managers and directors noted an upward trend, and half of the heavy construction chapters and directors reported slight cost increases.

Considering work coming on the market, 50% of the building construction chapters and directors reported an increase in volume, 55% of the highway chapters and directors, and 70% of the heavy chapters and heavy construction directors.

Among reasons for an increase in building construction volume was that a certain amount of the new work includes needed community facilities, such as schools and hospitals, and that prospective owners for other types of building construction have recognized the fact that construction prices are not out of line with those for other commodities and are not likely to decrease drastically in the near future. Heavy construction chapters and directors attributed the increase in work volume to a sharp jump in power plant construction, and sewer, water, and sanitary facilities construction, and an increased amount of heavy industrial construction.

Analysis of Shortages

Looking at the results of the question on material shortages, building and highway contractors appear to be affected the most by inadequate supplies. Of replies from building directors and chapters, 83% reported shortages and 55% of highway construction chapters and directors noted shortages. Only 23% of heavy chapters and directors indicated material shortages.

Most frequently mentioned reasons for shortages were slow deliveries, lack of freight cars, and a dealer reluctance to replenish their own stocks at current wholesale prices.

Shortages of structural, fabricated, and reinforcing steel were most often noted, followed by short supplies of lumber and millwork, iron pipe and clay pipe.

Equipment Supply

On the subject of the construction equipment supply, highway contractors seemed to be the most concerned by lack of new machinery, 55% reporting shortages. Also, 50% of the replies from the heavy construction industry noted equipment shortages. Only 17% in the building division reported difficulties in obtaining construction machinery.

General shortages were reported of cranes, shovels, tractors, compressors, scrapers, and replacement parts. Slow deliveries was a reason advanced for equipment shortages. An unwillingness on the part of dealers to give reasonable trade-in allowances on old equipment was also noted.

Manpower Problems

All building chapters and directors reported a shortage of manpower; 36% of highway division representatives reported labor shortages, and 40% of heavy construction chapters and directors.

Bricklayers, plasterers, lathers, carpenters, plumbers, electricians, iron workers, and skilled highway and heavy construction workers were among the most frequently mentioned crafts in which there are shortages.

Buffalo--Queen City of the Lakes Rich in History and Engineering Lore

(*Continued from Page 2*)

tural side of life. The first church was established during the War of 1812 and there are now 341 churches representing fifty-six denominations in the city. The first school was started in 1817 and the school system has had a remarkable development, there now being eighty-three public schools, nine academic high schools, four industrial high schools and sixty-eight parochial schools. Buffalo inaugurated the first Night School in the country in 1910 and now leads in Night School attendance. University of Buffalo Medical School was started in 1839. Additions and extensions followed, and since 1913 Buffalo has had a complete University of high standing. Canisius College and D'Youville College for women are also a part of Buffalo's educational setup.

Buffalo has fifty-five recreational centers — thirty-one public playgrounds — six wading pools — six swimming centers and all the other modern setups for the pleasure and the health development of its people.

It can be readily seen that a three or four day stay in the City of Good Neighbors is insufficient for any visitor to really acquire the spirit that prevails here. Nevertheless, Buffalo bids you welcome and we know that by the end of your stay that you will say—"it tastes like more" and we will see you again—soon.

Thirteenth Annual Meeting

(*Continued from Page 4*)

direction of Mr. Winne. The project includes nuclear research and development work at Schenectady, at the Hanford Engineer Works, near Richland, Washington, and at other locations.

Mr. Winne is a fellow of the American Institute of Electrical Engineers. He is a member of the American Society of Mechanical Engineers, Society of Naval Architects and Marine Engineers, Society for the Promotion of Engineering Education, New York State Society of Professional Engineers, Newcomen Society, and Army Ordnance Association. He is a member of the Mohawk Club, Mohawk Golf Club and the Edison Club, all in Schenec-

(*Continued on Page 14*)

PROGRAM OF THIRTEENT

December 4

2:30 P. M. .... Executive Committee Meeting

6:30 P. M. .... Get-Acquainted Buffet Supper
(Entertainment)

December 5

9:30 A. M. .... Final 1947 Board of Directors Meeting
Ritchie Lawrie, Jr., *Presiding*

Seating of Directors

Reading Minutes June 1947 Board of Directors Meeting

Reports of Officers

- *President's Report* .... Ritchie Lawrie, Jr.
- *Treasurer's Report* .... R. B. Allen
- *Executive Director's Report* .... Paul H. Robbins

Reports of Standing Committees—

- *Executive Committee* .... Paul H. Robbins
- *Legislative* .... Ray M. Fuller

12:30 P. M. .... Board of Director's Luncheon
Ritchie Lawrie, Jr., *Presiding*

2:00 P. M. .... Board of Directors Meeting
(Resumed)

Reports of Standing Committees (Resumed)—

- *Public Relations* .... M. W. Cameron
- *Publications* .... C. George Krueger
- *Educational* .... Walter H. Wheeler
- *Practice and Ethics* .... F. C. Mirgain
- *Resolutions* .... Robert Coltharp
- *Budget* .... R. B. Allen

Reports of Special Committees—

- *Constitution and By-Laws* .... C. S. Larkey
- *Military Affairs* .... W. A. Hardenbergh
- *Employment Practices* .... J. S. Kennedy
- *Extension* .... M. J. Blew

Reports of NSPE Representatives to Special Activities

Old Business

New Business

Time and Place of 1948 *Annual Meeting.*

6:30 P. M. .... Dinner, General Brock Hotel
(Niagara Falls, Canada)

NNUAL NSPE CONVENTION

December 6

"As Others See the Responsibilities of Engineers"

10:00 A. M. . . . . . ENGINEERS RESPONSIBILITIES AS SEEN BY INDUSTRY
(Harry A. Winne, Vice-President, General Electric Company)

11:00 A. M. . ENGINEERS RESPONSIBILITIES AS SEEN BY AN EDUCATOR
(Dr. Allan R. Cullimore, President, Newark College of Engineering)

12:30 P. M. . . . . PAST-PRESIDENT'S LUNCHEON
(William H. Larkin, President NYSSPE, Toastmaster)

AWARDS TO PAST PRESIDENTS . . . . Alex Van Pragg, Jr.

"ENGINEERS RESPONSIBILITIES AS SEEN BY GOVERNMENT
(To be announced)

3:00 P. M. . . . . ANNUAL NSPE MEETING

RITCHIE LAWRIE, JR., *Presiding*

ROLL CALL OF DELEGATES
READING OF MINUTES OF 1946 ANNUAL MEETING
REPORT OF THE PRESIDENT
REPORT OF THE MEMBERSHIP COMMITTEE
REPORT OF THE TELLER'S COMMITTEE
ELECTION OF NOMINATING COMMITTEE
ANNOUNCEMENT OF COMMITTEE APPOINTMENTS FOR 1948
ADJOURNMENT

7:00 P. M. . . . . ANNUAL NSPE BANQUET
Hotel Statler Ball Room

NEWELL NUSSBAUMER, *Toastmaster*

7:00 P. M.—1:00 A. M. . . . . DANCING

"Joe" Armbruster and his Orchestra
(Nationally Famous Dance Band)

December 5
LADIES PROGRAM

9:00 A.M. . . . . "EARLY DATE AT HENGOERS"
(Radio Broadcast)

CLINTON BUEHLMAN, M. C.

10:00 A. M.—1:00 P. M. . . . . SHOPPING

1:15 P. M. . . . . LUNCHEON, BUFFALO ATHLETIC CLUB

3:00 P. M. . . . . BUS TRIP TO NIAGARA FALLS

6:15 P. M. . . . . DINNER (with men)
General Brock Hotel

December 6

7:00 P. M. . . . . ANNUAL NSPE BANQUET AND DANCING

Thirteenth Annual Meeting

tady and the Cherry Valley Masonic Lodge. He is married and has two children.

With this background and experience Mr. Winne will make an excellent speaker for the NSPE annual meeting. He will discuss the views which industry takes of engineers and the engineering profession.

Dr. Allan R. Cullimore will discuss the view of an educator of the duties and responsibilities of the engineering profession. He is president of the Newark College of Engineering.

Educators Background

Dr. Cullimore holds a B.S. degree from MIT and a D.Sc. degree from the University of Newark. He was a draftsman for the American Bridge Company from 1906 to 1908 and Assistant Superintendant of Construction for the City of St. Louis from 1909 through 1912.

In 1912 he entered the education field, becoming Dean of the College of Industrial Science of the University of Toledo, which post he held until 1916. From 1916 until 1919 he served as Dean of Engineering at the University of Delaware and then, in 1919 he became dean of the Newark College of Engineering, which post he held until 1927. At the present time, Dr. Cullimore is Director of the Newark Technical School, which post he has held since 1919 and also President of the Newark College of Engineering which post he has held since 1927.

Dr. Cullimore is a member of the American Chemical Society, American Society for Engineering Education, the American Society of Mechanical Engineers, the Engineers Council for Professional Development and the Society of Professional Engineers of Hudson County.

Dr. Cullimore is also active in the American Red Cross, the American Association of School Administrators, the Boy Scouts of America, the Essex County Mosquito Extermination Commission, the MIT Alumni Association, the New Jersey American Legion, the Salvation Army Association and the Thomas A. Edison Centennial Committee for 1947.

Dean Cullimore is generally recognized as one of the leading figures in the field of engineering education. Thus he is well qualified to address the annual meeting of NSPE.

Former Governor Harold G. Hoffman of New Jersey will also address the meeting. He will be the ma
speaker at the annual banquet, a
will, in addition to making an inte
esting and entertaining speech, su
up the views which are presented
the other men on the program.

Mr. Hoffman became governor
New Jersey at the age of thirty-eig
thus achieving the distinction
being the state's youngest govern
At the age of sixteen he was a poli
reporter. At eighteen, and editor a
at twenty-one, after enlisting as
private, a Captain in World War

Returning home he became a ba
official, and then, intensely interest
in government, he became succe
sively a City Treasurer, Mayo
member of the New Jersey Legi
lature, twice a member of Congre
a state motor vehicle commission
Governor, and executive director
the New Jersey Unemployment Co
pensation Commission.

(*Continued on Page* 25)

Ohio Society Plans Exam Publicity

The Ohio State Board of Registration of Professional Engineers and Surveyors has been persuaded to turn the whole job of handling publicity about successful candidates in the July, 1947 examinations over to the Ohio Society of Professional Engineers.

It has been agreed that if the Society does a good job, it will be asked to take it over every year.

The Ohio Society is approaching this task on a local basis by urging each chapter to cooperate. Lloyd Chacey, Ohio Executive Secretary, who is largely responsible for the arrangement, has sent a sample press release about the successful candidates in the various chapter areas.

He has also suggested that photographs of the candidates with the highest grades be furnished to the papers in their areas. It is expected that localized handling of this story will result in much more publicity for the candidates than in the past. Clippings, which chapters have been requested to furnish to the State Society, will provide an index of the program's success.

NSPE Man Heads Research Project

The American Electroplaters' Society has recently announced the establishment of a new research project on The Disposal of Plating Room Wastes.

The Project Directing Committee is under the chairmanship of Dr. C. Fred Gurnham, who is a member of NSPE and a chemical engineer, of the Whitney Blake Company of New Haven, Conn.

The project currently comprises an intensive survey and critical review of the existing literature in this field. This will be followed by laboratory and pilot plant investigations, and by cooperative work in industrial treatment plants. Progress and final reports will be published in *The Monthly Review,* official journal of the Society, and as A.E.S. Research Reprints.

Georgia Tech Honors Emerson

The highest award that can
made to an alumnus of the Geor
School of Technology was made
Cherry Logan Emerson when he
ceived from President Blake Rag
dale Van Leer the 1947 Distinguish
Service Award. Mr. Emerson hol
degrees of B. S. in M. E. (190
and B. S. in E. E. (1909) fro
Georgia Tech and at present is De
of Engineering there.

In making the award, Preside
Van Leer said: "To Cherry Log
Emerson, distinguished son of a di
tinguished father, excellent stude
good athlete, loyal alumnus . .
Eminent engineer, professional lead
President of the Georgia Soci
of Professional Engineers, faith
worker in civic affairs, successf
businessman, national director of t
Boy Scouts of America, director
the Georgia Tech National Alum
Foundation, director of the Geor
Tech Research Institute I
dustrious and persuasive advocate
all good things for Georgia Tec
For your many accomplishments f
Georgia Tech in the year 1946-194
but chiefly for your outstanding co
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gratitude."

Ohio State's Student Chapter Describes Organization and Aims

By **WILLIAM J. MEAD**

esident O. S. U. Student Chapter

Since its founding in 1934, the tional Society of Professional En- eers and its many component ate Societies have done much to omote true professionalism in the d of Engineering. They have ilt up the name "Engineer" in the nd of the public, established and forced standards of practice, ought legislative force to bear, es- cially on the question of regis- tion, and have broadened the in- est and civic mindedness of mem- s of the profession. In this com- ritively brief span of thirteen ars, the Society has effected won- rs in tying together a segregated ofession. These facts are well own to the readers of the AMER- AN ENGINEER.

Job Unfinished

The Society *has* gone far . . . . but the job finished? Not by a long ot! One has but to glance at the tistics to realize all too well that very large percentage of practicing gineers are not members of the ciety. An organization such as s can do only a portion of what would like without the necessary ength in membership.

Why do the rest of the Engineers join? That is a big question, and omplete answer is almost impos- le to provide. Perhaps it is due part to the fact that many of the sent members seem a bit slow in ruiting their associates. Perhaps , a good many of the men in in- try are somewhat set in their ys, having the attitude that they e gotten along for years without aid of an over-all organization, they see no reason for them to be- ne interested in one now. Such tia will be found quite difficult vercome.

Logical Solution

The logical, long-range solution to situation is to acquaint the *young* gineer with the principles, past ievements, and future aims of the iety. Firmly plant in his mind advantages to himself, his pro- ion, and society that are to be ed by his active participation in a program. The Engineer of orrow is the student of today . . . it is *he* to whom the ideas of unity and professional spirit must be sold, not the older practicing Engineer whose opinions have long since been firmly and unchangeably moulded.

Many of the "founder" and technical societies have long realized the truth of this, and have carried their programs to the college campuses by the establishment of student branches of their organizations. It is now possible for the interested student to become affiliated with student-run components of the A. I. Ch. E., A. I. E. E., A. S. C. E., and most of the other well known organizations.

Students Take Notice

Some of the far-sighted members of the Ohio Society of Professional Engineers considered the value of student components, but they realized that if such a movement were to be successful, it would have to originate with the students themselves. They were quite pleased, therefore, when a few of us at Ohio State began to take notice of the doings of the Ohio Society. The suggestion was subtly offered by Engineer L. K. Herndon, a Professor of Chemical Engineering at the University, that we take steps toward organization. The suggestion was taken, and a meeting for that purpose was called. While little publicity was given this meeting, about 50 students turned out. This meeting was followed up with two others, at which a constitution was drawn up, and officers elected. At the present time, membership in this student chapter is about sixty, but as yet no real effort has been made to secure personnel. With over 3500 Engineering students attending the University, the prospects for large membership are good. It is pleasing to note that response on the part of the officers of the state and local Societies has been quite gratifying. Mr. Lloyd A. Chacey, Executive Secretary of the Ohio Society has been especially helpful in getting the organization moving. We have big plans in store for this autumn.

Chapters Purposes

The purposes of the new student chapter are set forth in the organization's constitution. They are::

1. To promote a professional attitude on the part of engineering students by:
   - (a) Affiliation with the Ohio Society of Professional Engineers.
   - (b) Providing guidance for professional problems.
   - (c) Providing information to members concerning registration examinations and professional engineering registration.
2. To provide a uniform program for all (student) engineers in all branches.

Specific Program

Members of the new chapter have outlined the specific things which they can do as follows:

1. Have meetings with Professional Engineers as speakers on (a) The Professional Organization, (b) The Union Question, (c) The Needs of Management in Industry, (d) The Personnel Problem, and (e) The Engineer as a Witness, A Public Servant, a Citizen, a Community Planner, or a Leader.
2. Promote activity of a professional nature in the Engineers Council.
3. Furnish speakers for the Founder Society meetings on the Professional Organization.
4. Write articles of a professional nature in each issue of the Ohio State Engineer.
5. Be missionaries of the Professional Movement.
6. Be an organization providing a common ground for cooperation among the Technical Societies.
7. Have Forum discussions of professional questions.
8. Promote registration so that 100 percent of Seniors take the examination.
9. Promote membership as a symbol of the professional man.
10. Have committees on: Program, Membership, Professional Development, Registration, Entertainment, Cooperation with Technical Societies, Public Relations and Executive.

It is respectfully suggested that the other State Societies would do well to investigate the possibilities of establishing similar student organizations in the colleges in their localities. The future power of the Society is a function of the number of enthusiastic members participating.

Legislative Committee's Monthly Report

Dear Fellow Member:

Since Congress went home last summer the legislative front has been relatively quiet, but behind the calm many important matters are brewing and some of these will undoubtedly be of the greatest concern to professional engineers, even though it may not appear obvious on the surface.

As an example, there is the so-called Marshall Plan, which has been the center of news in growing intensity as the dark clouds gather over Europe. It is certainly not our intention to tell you just what the Marshall Plan is, or otherwise attempt to guess at its details. But it is a matter of common knowledge that Congress will be vitally concerned with it when it returns to Washington. It will unquestionably be one of the major topics for action at the Special Session called by President Truman.

Congressional Hurdles

No one could dare predict right now just what form the Marshall Plan will take after it has cleared the Congressional hurdles, or the amount of money that will be appropriated or authorized for European rehabilitation. But on the basis of developments to date we can, with relative safety, predict that Congress is not going to write any blank checks for the program. It seems quite evident that the solons are going to insist that the money spent in Europe be spent primarily to speed self-help to the ravaged European nations in order that they may become self-sufficient communities. Furthermore, there is a definite feeling on the part of Congressmen, both those who have remained in this country and those who have travelled abroad to see conditions for themselves, that the American aid must be supervised and controlled in order to provide insurance for ourselves that the funds will not be spent in vain.

This is where the engineer comes into the picture, and in a big way. Whether this supervision and control will take the form of an international commission, a U. S. version of the War Production Board, or any one of a hundred other organizations, it is quite reasonable to suppose that the control will follow the money—and that means the United States.

Volunteers Will Be Called

Under this doctrine of control and supervision it is difficult to see how the plan can help but require large numbers of American engineers. This may be construed as advance notice to the profession that volunteers will be called for to serve in these capacities. That the control and supervisory personnel will have to include large numbers of engineers is seen from the report of the Committee of European Economic Co-operation. This report, drawn by the European statesmen in response to Secretary Marshall's implied invitation at Harvard University, sets forth in a general way the essentials of European recovery. Among these the Committee noted a considerable expansion of steel production, which they stated, would clear the way for a considerable increase in engineering output, particularly in those branches of the engineering industry which provide equipment for the key commodities and services. Another mention of the "engineering industries" is found in the discussion of improving inland transport. Coal production is listed as one of the vital necessities and the engineering aspects of this problem need no elaboration. The goal has been set at an increase if coal production to 584 million tons by 1951 which would be an increase of one-third over 1947.

RAY M. FULLER

Other Goals Reported

Listed below are some of the oth goals set forth in the report, so th engineers may grasp the scope of t program as it involves engineeri directly:

(1) Expansion of electricity ou put by nearly 70,000 million kwh 40 per cent above 1947 and a grow of generating capacity of over million kw or two-third above pr war.

(2) Development of oil refinin capacity in terms of crude oil throu increasing output by 17 million to to two and a half times the pre-w level.

(3) Increase of crude steel pr duction by 80 percent above 1947 a level of 55 million tons or 10 m lion tons (20 percent) above 193

(4) Expansion of inland transpo facilities to carry a 25 percent great load in 1951 than in 1938.

(5) Restoration of pre-war me chant fleets of the participatin countries by 1951.

Most of the materiels, goods, an services for this far-reaching pla will have to come from the Unite States and the effect on America industry and its engineering skil will be imposing, to say the least. Th plan will require co-ordinated en gineering on a scale large than ev existed in Europe. Yet, like its oth resources, Europe's engineering sk has been depleted by the war. here too, American engineers may asked to provide the skills and abil ties to overcome the European d ficiencies. This is in addition to th engineering personnel that will required for supervisory and contr functions in order that Congress ma know that the money is being we spent and in accordance with th terms laid down in the grant.

Industrial Rennaissance

When Secretary Marshall spok his historic words at Harvard Un versity on June 5, 1947 he open the way to a national program whi will, of course, affect every Ame can citizen. In addition to its in plications to us as citizens it is outstanding importance to us as pr fessional engineers.

When Congress meets to consid the concrete program and as the d bate swirls around the Capitol an through the country the engineerin profession will also be watching f clues to what may be, in Europe least, industrial renaissance.

Cordially yours,

Ray M. Full

Code of Ethics Distribution Planned

In the adjoining column is repro- uced the "Canons of Ethics of ngineers." This is an official ver- on of the Canons as prepared by ne Engineers Council for Profes- onal Development and adopted by ne Board of Directors of NSPE on ctober 28, 1946.

In an effort to bring about univer- al acceptance of this code among rofessional engineers, NSPE has ade arrangements to distribute opies throughout the membership of ne profession at a nominal charge hich will cover only the cost of rinting and handling. This charge fifty cents (50c) per copy.

The copies for distribution are uch larger than the reproduction ere, being suitable for framing. hey are printed in two colors, red nd black, and will make a pleasing all display for an engineer's office.

Probably no single thing can bene- t the individual engineer as much as etting the public know that his pro- ession has a strict code of ethics and hat he subscribes to it. The prestige f the medical profession is largely ue to its strict code and the attorney beholden to his bar Association or strict enforcement of the rules f practice for the legal profession.

Engineers have a code—just as trict and as effective as the rules overning the medical and legal pro- essions.

Benefits Derived

When the general public becomes ware of the strict rules which overn the practice of engineering, ne individual engineer will be more espected in his local community than t the present time. Consequently his nfluence as a citizen will be increased nd his opportunities to be of pro- essional service to his community ill be multiplied.

The code merely represents a pub- shing in words of the rules and ractices which any truly profes- ional engineer would follow in his ealings with both the public and ith other engineers. It is well ritten and provides a reasonable set f rules for conduct.

However, each professional engi- eer should have a copy on his office all, as a reminder to himself and let those with whom he deals know hat he is truly a professional man.

Canons of Ethics for Engineers

Foreword

Honesty, justice and courtesy form a moral philosophy which, associated with mutual interest, constitute the foundation of ethics. The engineer should recognize such a standard, not in passive observance, but as a set of dynamic principles guiding his conduct and way of life. It is his duty to practice his profession according to these Canons of Ethics.

As the keystone of professional conduct is integrity, the engineer will discharge his duties with fidelity to the public, his employers and clients, and with fairness and impartiality to all. It is his duty to interest himself in public welfare, and to be ready to apply his special knowledge for the benefit of mankind. He should uphold the honor and dignity of his profession and avoid association with any enterprise of questionable character. In his dealings with fellow engineers he should be fair and tolerant.

Professional Life

SEC. 1. *The engineer will cooperate in extending the effectiveness of the engineering profession by interchanging information and experience with other engineers and students and by contributing to the work of engineering societies, schools and the scientific and engineering press.*

SEC. 2. *He will not advertise his work or merit in a self-laudatory manner, and he will avoid all conduct or practice likely to discredit or do injury to the dignity and honor of his profession.*

Relations With The Public

SEC. 3. *The engineer will endeavor to extend public knowledge of engineering, and will discourage the spreading of untrue, unfair and exaggerated statements regarding engineering.*

SEC. 4. *He will have due regard for the safety of life and health of public and employees who may be affected by the work for which he is responsible.*

SEC. 5. *He will express an opinion only when it is founded on adequate knowledge and honest conviction while he is serving as a witness before a court, commission or other tribunal.*

SEC. 6. *He will not issue ex parte statements, criticisms or arguments on matters connected with public policy which are inspired or paid for by private interests, unless he indicates on whose behalf he is making the statement.*

SEC. 7. *He will refrain from expressing publicly an opinion on an engineering subject unless he is informed as to the facts relating thereto.*

Relations With Clients And Employers

SEC. 8. *The engineer will act in professional matters for each client or employer as a faithful agent or trustee.*

SEC. 9. *He will act with fairness and justice between his client or employer and the contractor when dealing with contracts.*

SEC. 10. *He will make his status clear to his client or employer before undertaking an engagement if he may be called upon to decide on the use of inventions, apparatus, or any other thing in which he may have a financial interest.*

SEC. 11. *He will guard against conditions that are dangerous or threatening to life, limb or property on work for which he is responsible, or if he is not responsible, will promptly call such conditions to the attention of those who are responsible.*

SEC. 12. *He will present clearly the consequences to be expected from deviations proposed if his engineering judgment is overruled by non-technical authority in cases where he is responsible for the technical adequacy of engineering work.*

SEC. 13. *He will engage, or advise his client or employer to engage, and he will cooperate with, other experts and specialists whenever the client's or employer's interests are best served by such service.*

SEC. 14. *He will disclose no information concerning the business affairs or technical processes of clients or employers without their consent.*

SEC. 15. *He will not accept compensation, financial or otherwise, from more than one interested party for the same service, or for services pertaining to the same work, without the consent of all interested parties.*

SEC. 16. *He will not accept commissions or allowances, directly or indirectly, from contractors or other parties dealing with his client or employer in connection with work for which he is responsible.*

SEC. 17. *He will not be financially interested in the bids as or of a contractor on competitive work for which he is employed as an engineer unless he has the consent of his client or employer.*

SEC. 18. *He will promptly disclose to his client or employer any interest in a business which may compete with or affect the business of his client or employer. He will not allow an interest in any business to affect his decision regarding engineering work for which he is employed, or which he may be called upon to perform.*

Relations With Engineers

SEC. 19. *The engineer will endeavor to protect the engineering profession collectively and individually from misrepresentation and misunderstanding.*

SEC. 20. *He will take care that credit for engineering work is given to those to whom credit is properly due.*

SEC. 21. *He will uphold the principle of appropriate and adequate compensation for those engaged in engineering work, including those in subordinate capacities, as being in the public interest and maintaining the standards of the profession.*

SEC. 22. *He will endeavor to provide opportunity for the professional development and advancement of engineers in his employ.*

SEC. 23. *He will not directly or indirectly injure the professional reputation, prospects or practice of another engineer. However, if he considers that an engineer is guilty of unethical, illegal or unfair practice, he will present the information to the proper authority for action.*

SEC. 24. *He will exercise due restraint in criticizing another engineer's work in public, recognizing the fact that the engineering societies and the engineering press provide the proper forum for technical discussions and criticism.*

SEC. 25. *He will not try to supplant another engineer in a particular employment after becoming aware that definite steps have been taken toward the other's employment.*

SEC. 26. *He will not compete with another engineer on the basis of charges for work by underbidding, through reducing his normal fees after having been informed of the charges named by the other.*

SEC. 27. *He will not use the advantages of a salaried position to compete unfairly with another engineer.*

SEC. 28. *He will not become associated in responsibility for work with engineers who do not conform to ethical practices.*

Prepared by Engineers' Council for Professional Development
and adopted by Board of Directors, National Society of Professional Engineers Oct. 28, 1946

**NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS
1359 Connecticut Avenue, N. W.
Washington 6, D. C.**

Please send me..................copies of "Canons of Ethics for Engineers" for which I an enclosing $.......................... These are to be supplied at a charge of 50c per copy.

Name ....

Address ....

....

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IEWS FROM THE VASHINGTON OFFICE

In Ray M. Fuller's report of the ivities of the Legislative Commit- in the October issue of the IERICAN ENGINEER, he indicated a number of important legislative matters which are of interest to engineers which will be acted upon by Congress when it reconvenes.

These matters were recently led to the attention of the legisla- e chairmen of the various state cieties in order that they may give ought to them and make recom- endations for the guidance of SPE in dealing with these impor- t items. In order to do this, the rious legislative chairmen will need well considered judgments and nments of the various state oups. In this way—and only in s way—can NSPE become acainted with the thinking of its in- idual members.

These laws will affect us all. The rectors who represent you in de- mining national policy will dis- s a legislative program for the ning year at their meeting in ffalo, December 5. Give them the hefit of your comments so that they y know your wishes.

Many other items will be con- ered at that time. The Board at last meeting in Washington re- ested all Committee Chairmen to ke their reports available suffi- ntly far in advance so that they y be distributed to each Board mber *at least* two week in advance each subsequent meeting. This is ng done. It will enable state so- ties and committees to give con- eration to the items on which ac- n is to be taken and to discuss h the national directors from the tes the wishes of the state member- p. This is another step in assuring the maximum amount of democratic action in the administration of your National Society.

The transfer of membership records to addressograph plates has now been completed in the Washington Office. The patience of the membership in bearing with us when changes of address have not been made promptly is appreciated. It is hoped that in the future these changes will be made with little delay. It is important, however, that the Washington Office be notified of such changes. Do not rely on the Post Office. Send us the information direct.

Closer coordination with state and chapter records is now possible. A procedure has been worked out to check monthly with each state society on changes in membership or address. This will expedite service to you from both your state and national headquarters.

As reported in the October AMERICAN ENGINEER ambitious membership programs are being planned in each state this fall. The national membership continues its steady increase, approaching 17,000 as this is written. It is hoped that we can report a considerable increase over this figure at the time of the annual meeting. Sign up all the new members you can by November 15, and report them promptly to state headquarters in order that they may in turn be included in the national totals for the end of November.

This issue of the AMERICAN ENGINEER carries the program of the annual meeting. You can see from the listings the excellent items planned. It is a program of interest to all members and one that we are sure will have much food for thought. The New York State Society and the Erie County Chapter, host organizations are going all out in their preparations. A most interesting ladies program is planned. Start now to make your plans to attend and bring the little lady. Get hotel reservations cards from your chapter secretary. I hope to see you at the annual meeting.

Plan to go to Buffalo!

Arkansas

Joseph F. Mayne, Federal Aid Engineer with the Arkansas State Highway Department died suddenly at his home in Little Rock, Arkansas on September 8, at the age of 50. Mr. Mayne was born in Fitchburg, Massachusetts. His family moved to Little Rock when he was a youth and he attended public schools there and later the University of Illinois.

From 1923 until 1931 he was with the Missouri-Pacific Railroad serving in various engineering assignments in Arkansas and Missouri. He became connected with the Arkansas State Highway Department in 1932 serving as engineer of maintenance until 1946 when he assumed the duties of Federal Aid Engineer. Mr. Mayne was a charter member of the Arkansas Society of Professional Engineers serving as Secretary-Treasurer of the organization for the year 1946 and was recently elected a vice-president for the current year. He was also a past president of the Little Rock Engineers Club, a 32° Mason and a member of the Presbyterian Church. He is survived by his wife and one daughter.

Maryland

The Annual Meeting of the Maryland Society of Professional Engineers was held at the Engineers Club in Baltimore on Friday, October 31. This was a dinner meeting.

* * *

William C. Feige, who served as delegate for the Maryland Society to the Regional Conference in Trenton, N. J., presented a full report on

Coming Events To Remember

National Meetings

December 4, 5 and 6. NSPE Annual Convention, Statler Hotel, Buffalo, N. Y.

this meeting at the October meeting One important item discussed concerned registration of landscape architects. Differences of opinion among the member societies represented developed, particularly in connection with the scope of coverage of the proposed New York Law with respect to improvements on land.

* * *

The Maryland Society has voted to adopt a group accident and sickness insurance program. According to sketchy reports, the plan is liberal to members of the Maryland group. Additional information will be made available to members in the near future.

* * *

The amended Maryland Registration law provides for the registration of engineers in training. The Maryland Constitution and By-Laws do not provide for the recognition of such engineers. In line with the recent recommendation of the NSPE Board of Directors, the Society has authorized its Constitution and By-Laws Committee to draft amendments which would bring about the recognition of this group.

Michigan

The Michigan Society of Professional Engineers held its first semi-annual meeting at the Hotel Bancroft, Saginaw, Michigan, on Saturday, September 20, 1947. The State Board of Directors, with President Stephen G. Szabo presiding, was called to order at 10:00 a.m.

The membership of the State Society was reported as rapidly approaching the five hundred mark. Mr. John P. Goggin, Consulting Engineer, (Civil), Clare, Michigan, delivered an address covering the relationship of registered surveyors and professional engineers, pointing out current misconceptions that are costly to the engineers and that should be corrected by limiting surveyors to surveying work and by authorizing all professional engineers to practice surveying.

Mr. C. George Kruger, National Director from New Jersey and Chairman of the Publications Committee of the National Society of Professional Engineers, was the guest speaker at the luncheon. The topic of his discussion was the "Dangers threatening the Engineering Profession by Professional Competition." The speaker pointed out that lawyers were encroaching on our professional field by endeavoring to secure in his state, New Jersey, rulings that all engineering reports should be made with an attorney representing the engineers.

The medical profession, he stated, as encroaching by entering into the fields of public health and safety, sanitation and water supply, industrial hygiene, ventilation, air, light, etc. These fields are pre-eminently engineering in type with the medical profession interest limited to approximately 25 per cent. At the present time the speaker stated the medical profession was approximately 75 per cent active. Fire and safety groups are also becoming very active, and a very evident lack of coordination with the engineering profession.

Mr. Kruger, in discussing briefly the labor conditions of the country, came out strongly against collective bargaining in any National Society of Professional Engineer activities and stated that he was opposed to collective bargaining in any form for professional engineers. He stated we should be very careful in publicity connected with our activities on this subject.

In discussing the development of our Society, the speaker enumerated three methods of procedure of the National, State, and local planes. First,—to create interest in our organization; second—to analyze causes that affected the organization detrimentally; and, third—to select and apply remedies where necessary. He pointed out that the maintaining of general interest was the obligation of local Chapters.

Following the address of Mr. Kruger, the Board of Directors resumed its activities and at the completion of State business, a general state meeting was held with Mr. Lloyd Chacey, executive secretary of the Ohio State Society, as guest speaker. Mr. Chacey presented an interesting summation of the activities of the Ohio Society, pointing out many ways where their experience might be helpful to Michigan and providing us with publications that they have issued. He expressed their desire to cooperate and assist us in every way possible.

Expansion in Ohio of local Chapters has been secured as follows: first—by stressing the importance of the Chapters; second—by arguing thoroughly the various points brought up for discussion but by agreeing to agree on a solution; third—by agressive action on all items affecting the Society and professional engineers as a whole; fourth—by educating future members in an endeavor to ha all graduates in engineering registe ed, and also by educating the publ on the value of the professional e gineer.

The Speaker advised the Michiga Society to endeavor to amend t registration acts of the state in eve session of the Legislature to secu desired publicity. He stated that t State Societies and their Chapte should organize to enforce the sta registration laws.

The evening dinner was a decide success, numbering not only t members of the Society, but the wives. The speaker of the evenir was Professor Renis Likert, PHI Director of the Survey Researc Center of the University of Mic igan. Professor Likert's address w on the subject of "Possible Applic tion of Survey Research Techniqu to Engineering Problems." He we into detail concerning sample inte view surveys made to secure sp data that had proved its value as guide to industry. Not only did t speaker point out the value of su veys for the sales field, but also t value of such surveys inside indu trial organizations themselves. presented a sample interview surv for use in checking the key perso nel of large organizations. Fo points for consideration in the sele tion of managers for departments divisions:

1. Managers who give employe a sense of participation in the d partment.

2. Managers who give their me a sense of security in their positio

3. Managers who carried to the men a sense of contagious enth siasm, giving them the feeling th their jobs were worth doing.

4. Managers with the technic know-how.

The success of this semi-annu meeting was largely due to the act ities of the special committee for t semi-annual and annual meeting This committee has Mr. H. K. Gon lot as Chairman and L. W. Long one of the most active of the me bers .

New Jersey

The Semi-Annual Convention NJSPE was held in Trenton September 20th and was attend by over 200 members and gues In addition to regular business, t amendments to the State By-La were approved: (1) The creation an Executive Committee of the Sta ard of Trustees, and (2) a change the State Nominating Committee that all Chapters will have repre- ntation.

* * *

In conjunction with the Semi- nnual Convention, the Annual egional Conference of the north- stern area was held. Representa- ves from Massachusetts, New ork, Pennsylvania, Maryland, and e District of Columbia attended. hree major topics were compre- ensively discussed. They were: (1) e Taft-Hartley Bill as it affects rofessional Engineers; (2) Na- onal and State legislation with a scussion lead by National Director uller of Pennsylvania; and (3) ngineer-in-Training organization ith a discussion led by President illiam Larkin of the New York ociety. President Larkin invited l States concerned to hold the 1948 egional Conference in the Empire tate.

* * *

For the past 18 months, repre- ntatives of the engineering and chitectural professions and the tate Association of Contractors ave been meeting monthly to dis- ss problems common to all three. he first part of a comprehensive nd final report of the Joint Com- ittee was published in the October sue of the "New Jersey Engineer."

ew York

Mr. L. T. Swanger of E. I. du- ont deNemours Co., was guest eaker at the October 28 meeting the Niagara County chapter. His bject: "Color Conditioning in In- stry."

Color conditioning is the applica- on of paint in colors with a con- olled reflection factor to utilize to e best advantage both natural and tificial lighting and also taking in- consideration intensity, glare, fre- ency fluctuation, shadows, etc. Its rpose: provision of a more com- rtable working background.

Swanger's talk was illustrated with color film. It is unique; should be lpful to all who deal with lighting nditions.

* * *

The Westchester County Chapter the NYSSPE is preparing to is- e a pocket roster of its members. his convenient booklet will contain e names, addresses, phone numbers d business connections of all chap- members. It will serve a number useful purposes and will be is- ed without cost to each member.

Ohio

The Maumee Valley Chapter of the Ohio Society of Professional Engineers heard Walter W. Walb president of the American Steel Dredge Company of Fort Wayne, Ind., discuss manufacturing, shipping, and operation of dipper and hydraulic dredges, barges and mobile cranes at its October 24 meeting in Paulding, Ohio.

Mr. Walb discussed some of the problems encountered in shipping dredges to India and operating them on the rivers and in the harbors there.

* * *

Dr. Edward Blythin, vice-president of Western Reserve University, was guest speaker at the October 31 meeting of the Cleveland Society. Among other guests present were candidates from the Greater Cleveland, Lake Erie, and Northeast sections. Paul Harlamert was presiding officer.

* * *

John M. Heffelfinger, president of the Cleveland Society of Professional Engineers, writes in the Third Quarter issue of the Cleveland Engineer as follows:

"'It Can't Happen Here'—Who said it can't? That's what you think. The complacency of some Engineers, if it wasn't tragic, would be amusing.

"Unionization, like Cancer, is creeping into our profession at rates unbelievable to the average Engineer.

"I have heard it said, "You can't organize a union shop in my organization because I am the only employee working there." Mister—have you ever heard of a company wanting the services of one carpenter or painter and going out in the open market to hire a mechanic who is not in the union? Do you know what would likely happen to his store or shop if he did employ such a man?

"If the unions take over the Engineering Profession in this town you won't work unless you carry a union card and pay your weekly or monthly contribution into the kitty. If you think otherwise you are kidding yourself.

"It is possible to do something that will protect the Engineer without having to join a Union. The reason this statement is made is because under similar circumstances on the West Coast the Engineer was faced with the same problem and their problem was worked out satisfactorily.

"The plan used on the West Coast is: to organize a group of employees who can act as bargaining groups for Engineers. This later method savors of Unionization in that it is a bargaining group but it is not a union group because it is not affected by decisions of the union, persons in the organization are free to seek employment where they choose, they do not go out on strike and they are not subject to sympathetic strikes or walk-outs.

"Since the Wagner Act has been changed, some type of bargaining group is possible to protect the rights of the Engineer.

Now is the time to begin to think of such things and to formulate plans to protect our interests. Not to wait until over 50% of all Engineers are carrying union cards then start crying.

"I know a great many of the Professionals will not agree on this line of thinking—so have others. On the West Coast they thought so too, but the union soon changed their ideas. Some of these bargaining groups I spoke of were formed and are functioning—much to the satisfaction of both the employee and employer and much to the chagrin of the union.

"This article was not written to influence anyone toward collective bargaining but to start us thinking and to keep a watchful eye out for the trend of this union movement.

"It is also intended to try to make us realize that just because we think we are safe doesn't make it so and that unless we are alert 'It can Happen here.'"

Pennsylvania

The Philadelphia Chapter held its first fall meeting October 2, at the Engineers' Club. 135 members attended the dinner session and a total of 175 at the evening meeting.

* * *

National Director Ray M. Fuller gave a detailed report of the State Executive Board Meeting and discussed the status of the National Society. Chairman John M. Borden introduced 68 new members making a total of 615 now in the chapter.

* * *

The Pittsburgh Society of Professional Engineers held its annual dinner meeting at the University in Oakland, on October 16, 1947. Ladies were present.

C. C. Carr, Director of Public Relations of the Aluminum Company of America was the guest speaker. He discussed, "Selling Ideals along with

Goods and Services." Joseph S. Schuchert, commercial manager of Duquesne Power and Light Company was the toastmaster.

Texas

The first regular meeting of the Nueces Auxiliary to TSPE convened at 10 a.m. Monday, October 6. President Harry E. Graham of the Neuces chapter was the guest speaker.

The standing Committee reports included the following outline of activities for the auxiliary during the coming year:

November 3—Luncheon at the "Y", Mrs. Peyton Bryan, Hostess Chairman.

December 15—Cocktail party with husbands as guests, Mrs. Nat Hardy, Hostess Chairman.

January 5—Book review by Mrs. J. S. Naismith, Mrs. J. R. Laurence, Hostess Chairman.

February 2 — Luncheon, Mrs. Blucher and Mrs. McClendon, Hostess Chairmen.

March 1—Coffee in the morning, Selection of nominating committee, Mrs. Volger, Hostess Chairman.

April 5—Installation of Officers and garden tour, Mrs. William Goldston and Mrs. Ridenour, Hostess Chairmen.

May 3—Guest Tea, Mrs. Mat Hardy, Hostess Chairman.

Wisconsin

Richard S. Falk, assistant to the president of the Falk Corporation and Gilbert Klein, associate counsel, addressed a meeting of the Milwaukee Chapter at the City Club on the Taft-Hartley bill. The purpose of the meeting was to acquaint the membership with the intent of the law regarding professional employees.

Mr. Klein emphasized that for the first time in history a law had been enacted to provide for dividing manual and professional employees into separate classifications. Mr. Klein said that vigorous and affirmative action is needed by engineers and other professional employees to define their position.

A wire recording was made of the addresses and the many questions that were directed to Mr. Falk and Mr. Klein. A large attendance, numbering over sixty, indicated the lively interest of the membership in this subject.

What's New For Engineers

Requests for further information concerning any item mentioned under this heading will be promptly referred to the manufacturer. It would be appreciated if inquiries be addressed on professional or company letterhead.

Send Inquiries Direct to American Engineer,
1359 Connecticut Ave., Washington, D. C.

NEW FLOOR COVER*

A new top-dressing for asphalt tile and lineoleum that eliminates waxing, has recently been announced by a manufacturer of building maintenance materials. Known as Floor-Dress, the new material is prepared under two separate formulas. One type is for application over asphalt tile, while the other is especially prepared for use on linoleum. The manufacturer describes the compound as a pale straw color, Pyroxlin base material which is easily applied with an ordinary paint brush over asphalt tile or linoleum which has been thoroughly cleaned and free from wax. The product has no unpleasant odor and dries out of dust to a non-slip surface in about ten minutes. It will not crack or peel, nor will it cause tile to curl. An initial application of three coats of this product is recommended with an hour drying time allowed between coats. Within three hours the new surface may be used for regular traffic. Ordinary mopping methods will maintain a sparkling clean surface. It will cover asphalt tile at a rate of approximately 350 to 400 sq. ft. per gallon the first coat, and 400 to 500 sq. ft. per gallon on subsequent coats.

For further information address American Engineer reference 1100.

TERMINAL BLOCK KIT

A new terminal block kit expressly designed for experimental work and maintenance operations, is now available. In a bulletin just prepared by this firm, a description of the kit, termed their type "B," discloses that any number of terminals, from one to 14, can be quickly and inexpensively produced. These terminal blocks are similar to factory built blocks and equally substantial. This individual "build up" feature i especially suited for electrical engineers doing experimental work an need "one of a kind" parts or part in small quantities for their projects To repair and maintenance people this block's flexibility should prov excellent for replacement purposes and a great time saver. All part necessary to assemble a wide assortment of terminal blocks, are provide in these kits. Blocks are recommended for installations where th temperature does not exceed 400°F

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For further information address American Engineer reference 1101.

LARGEST BLADE SHEAR*

The largest shear ever built employing the pivoted-blade principle o operation was recently completed Capable of cutting 12 feet of ¾ inch steel plate, at 30 strokes per minute the machine has an extra deep 3 inch throat, thus permitting slitting of very wide plate. The knife clearance may be varied to suit the thickness of plate being cut. A large dia indicator indicates the clearance i thousandths of an inch and als shows the plate thickness that ma be cut for any knife setting. Th machine is electrically operated by foot switch which can be move about the floor to the best workin position. A back-gauge which float on ball bearings is quickly adjuste by a crank placed within easy reac at the right end of the machine bed This type shears have been develope for various thickness metal, from 1 gauge to ¾ inch and designs hav been developed for plate up to 1 inch.

For further information address American Engineer reference 1102.

ELECTRIC INDEX TABLES*

A manufacturer of multiple drilling and tapping machines, and specia and standard adjustable multiple dri heads, is ogering electric powered geared and hand operated inde tables as standarized units. Th tables, in diameters up to 48", wer eloped as components of Buhr oduction drilling machines but are v adapted for general production plications. This index table pro- es fast, shockless, accurate index- ; with lowered operator fatigue l increased output. The power is nsmitted through a worm gear to roller-type cam track, a design ich permits extremely smooth, iform, angular acceleration and celeration. It eliminates al back- h, bumps, jars and vibrations. The le load is carried on ball bearings a hardened race and is centralized a heavy ball bearing spindle. The wer index table surface is scraped extreme accuracy; the operating otor can be placed at front or rear.

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* Items so marked are furnished by the editori staff of the magazine *Production Equipment.*

For further information address Ameri- n Engineer reference 1103.

CARBIDE GRINDING BUR*

A new carbide grinding bur has en announced by a manufacturer rotary files for the past twenty-five ars. This tool was developed for ernal grinding, jig grinding, and nding or fine finishing by off-hand inding. It works equally well on ft materials or on steels hardened 5 Rockwell C. The grinding bar precision ground on special ma- ines, producing a uniform and ly concentric tool which gives ximum cutting efficiency. Greatly proved performance as compared abrasive wheels is insured by ster material removal; ability to ld shape and tolerances without essing or set-up adjustments; finer ish with no loading. Product is cked in standard sizes from 1/16″ ¾″ tool diameter for operation in ecision grinding equipment at con- ntional grinding speeds. The new nding burs are available through l supply houses.

For further information address Ameri- Engineer reference 1104.

DJUSTABLE ROLLER SWITCH*

Recently announced is a new sealed cision switch with adjustable er arm actuator for use in indus- l equipment where the switch is posed to dust, dirt and occasional ash of oil and water. The switch designed particularly for cam and e actuation on industrial applica- ns. The roller arm actuator is ad- table both vertically and hori- tally. The switch is supplied with er bottom mounting or side nting facility. The synthetic rub- boot covering the operating nger and the gasket assembled between the bottom plate and the housing case provides a completely sealed switch unit, when the conduit hub is fitted with rigid conduit. Characteristics whose accuracy is maintained throughout are: operating force, 6 to 16 ozs., release force, 4 ozs., pretravel, 11/64″ max., overtravel, 7/32″ min., movement differential, 0.006″ max., with a maximum weight of 0.64 pounds.

For further information address American Engineer reference 1105.

PISTOL GRIP DRILL*

A new lightweight portable electric drill, ideal for industry, shop and workshop has been announced by this concern. Outstanding features, according to the manufacturer, include a comfortable pistol grip handle with trigger switch control and newly designed air-cooled Universal AC-DC motor. Other features include: lightweight stator housing made of seamless aluminum tubing; screw on drill chuck; oil retaining bronze bearing and a 6 foot heavy flexible rubber covered cord and plug. Known as model No. 77, its design features assure more power and longer life, yet of the right size for handling. Principal specifications: no load speed, 1700 rpm; full load speed, 900 rpm; capacity — one quarter inch drill in mild steel or hard wood; overal length, 11 inches; body diameter 2¼ inches; and weight 3 lbs. 8 oz.

For further information address American Engineer reference 1106.

CHARGER AND ARC WELDER*

A newly perfected, portable combination battery charger and arc welder has been announced by this corporation. This unit is available in two models; model 77 which is a 30 amp charger, and 74 amp welder; and the 77—PFC, which is a 10 amp charger and 55 amp power factor corrected welder. These units have the sturdy transformer construction that has long been prevalent in this firm's arc welders.

For further information address American Engineer reference 1107.

4-POLE ENCLOSED MOTOR*

This improved 4-pole shaded pole motor, designated type "T," under the trade name of Micromotor, is built in sizes from 1/25th to 1/100th horsepower. It has a three piece die cast frame with a steel outer shell enclosing the air-stream cooling system. In the flush-weld rotor, every slot is copper filled flush with the surface, precision skewed and welded, the surface is machined and rust inhibited, and the assembly accurately balanced. Windings are highly resistant to oil or atmospheric conditions. Large porous bronze bearings are broadly spaced. Each bearing is individually fitted to shaft at close tolerances and spring tension centered. Porous bronze bearings retard gumming by filtering the lubricant. Super capacity oil reservoirs prolong bearing life. Positive oil return is accomplished by special oil slingers and oil retainers. An unusually rigid base is provided by multiple curvatures formed in heavy gauge pressed steel. Motor is cradled in large live rubber cushions held firmly in place by strong steel cups.

For further information address American Engineer reference 1108.

BENCH TYPE WELDER*

This manufacturer of all types of resistance welding equipment and special machinery, announces a new general purpose air operated bench type combination spot and projection welder for welding mild steel, stainless steel, aluminum, etc. While the machine follows conventional lines, it incorporates several improvements over former designs. The machine is equipped with a special low inertia rubber head with micro-switch firing. The vertically adjustable lower knee is standard as are the horns and water cooled point holders. The 30 KVA transformer, contained within the frame, has six steps of heat regulation which are easily controlled by the tap switch arrangement shown here. The 2¼ inch stroke of the machine is actuated by an air-operated double-acting cylinder. Throat depth from the machine face to the center line of the electrodes is 6 inches.

For further information address American Engineer reference 1109.

NEW AC ARC WELDER*

An exceptionally large illuminated current indicating scale is the dominant feature of a new line of industrial type AC transformer welders announced by this concern. The scale is uniformly calibrated so that the extra large figures are evenly spaced from minimum to maximum welding heat settings, instead of crowded at one end and wide open at the other. The dial is of translucent plastic, illuminated from within by a 110 volt lamp mounted in a standard base, making it easy to read from a dis-

(*Continued on Page* 25)

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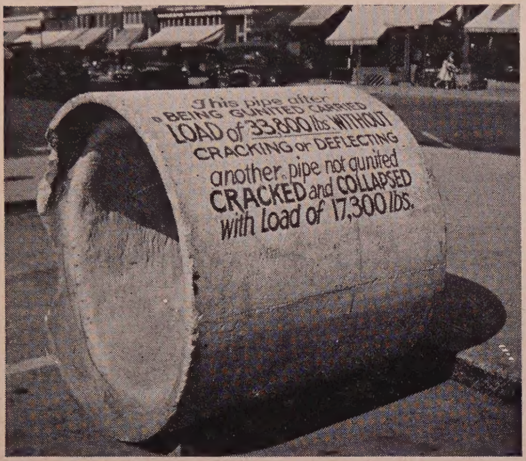

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What's New For Engineers

(*Continued from Page* 23)

ice in either light or dark loca- ns. These welders are all of the oving coil type with no adjustable agnetic paths. By both coils mov- g, the time required to make a ven change in welding heat is one- ird less than would be required if e coil remained stationary. Since e coil always moves downward as e other moves upward, the weight the descending coil helps lift the cending coil. Adjustment of cur- nt is made by means of a con- nient knob on a pressed steel disc at serves as the top cover of the se. These welders have an excep- nally high full load efficiency and exceptionally low no load input. ne circuit reactance and the no load ltage are so balanced as to make e arc starting prompt and easy for y thickness of metal, without re- iring special relays for this pur- se. Capacitors are built in the units r power factor correction.

For further information address Ameri- n Engineer reference 1110.

Thirteenth Annual Meeting Plans

(*Continued from Page* 14)

At the outbreak of World War he took military leave from a vernment position and became an icer in the Transportation Corps, th headquarters at the great New ork Port of Embarkation, through hich millions of men and tons of aterial passed to the European and editerranean Theaters of Opera- n.

Contacted Fighting Men

His duties took Colonel Hoffman erseas, by plane and by Army ansport, on several occasions, and ought him in close contact with nerican fighting men in every ase of military activity.

Colonel Hoffman has now returned private life.

These and many other speakers of te will highlight the three day eting of the Society. And in addi- n to the business programs, much n has been planned for those ending the convention. There will be luncheons and dinners and even a dace, according to advice from the New York State Society and the Erie County Host Chapter.

The program is important and entertaining. We hope to see you in Buffalo.

Agreement Form

A Standard Form of Agreement between Owners and Engineers for Professional Service is available from Society Headquarters. The form adopted has been used extensively for several years past by a number of engineers and has been found to be satisfactory for the purpose. The form is general in nature and must be carefully scrutinized before being applied to particular situations.

Copies are available at the Washington Office at a cost of ten cents each. Orders may be sent directly to the Washington Office or they may be consolidated at State or Chapter level for bulk handling.

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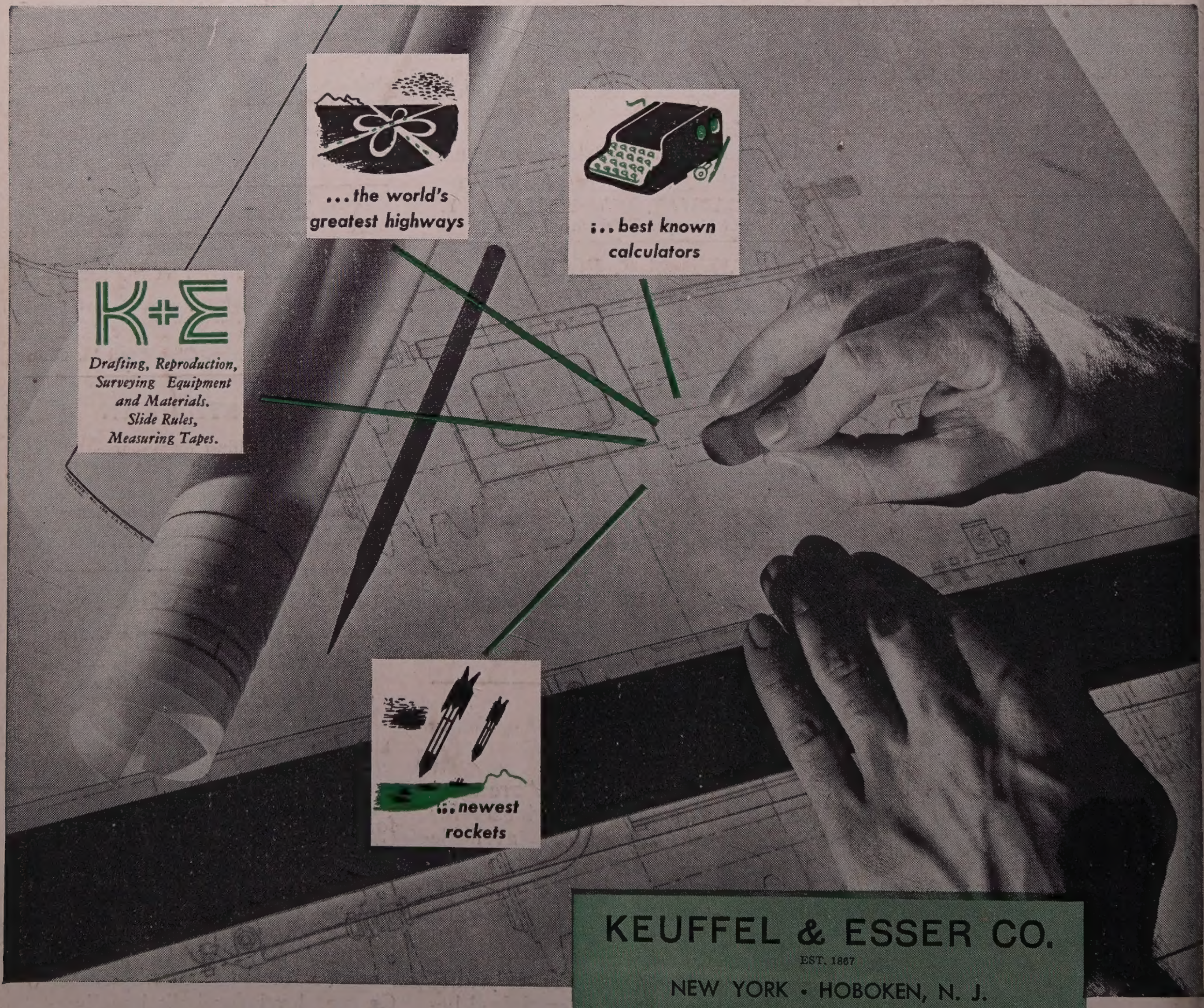

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